

Montana Fish, Wildlife & Parks Region 2 Wildlife Quarterly October 2021



Mule deer near Brown's Lake, May 2, 2021

Technical Bulletin No. 33



Montana Fish, Wildlife & Parks Region 2 Wildlife Quarterly

Region 2, 3201 Spurgin Road, Missoula MT 59804, 406-542-5500

Mule deer on the National Bison Range, September 5, 2021.

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Photographs are by Mike Thompson and Sharon Rose unless otherwise credited.

The Region 2 Wildlife Quarterly is a product of Montana Fish, Wildlife & Parks; 3201 Spurgin Road; Missoula 59804. Its intent is to provide an outlet for a depth of technical information that normally cannot be accommodated by commercial media, yet we hope to retain a readable product for a wide audience. While we strive for accuracy and integrity, this is not a peer-refereed outlet for original scientific research, and results are preliminary. October 2015 was the inaugural issue.



WEATHERVANES

They'll tell you which way the wind's blowing for mule deer populations, if you know how to read the signs.

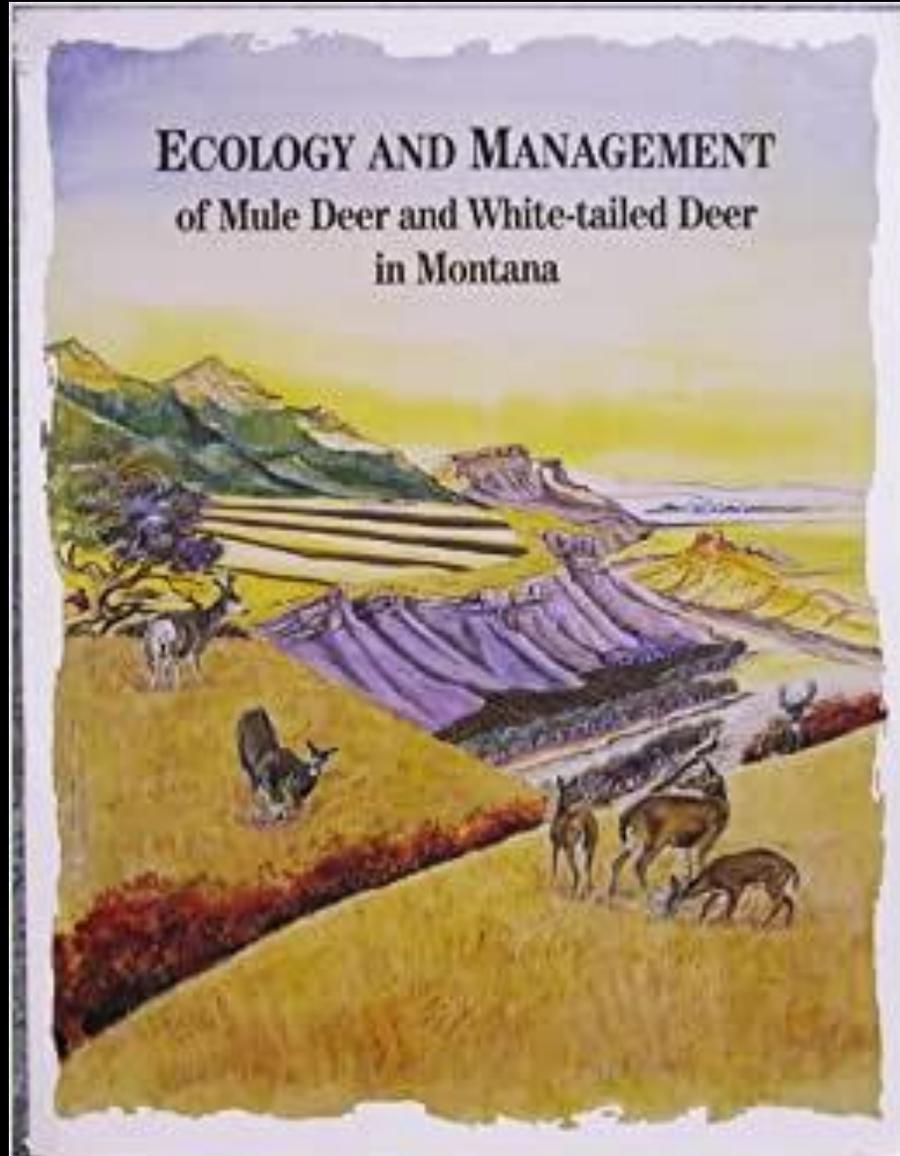
Recently, in much of Region 2, mule deer have faced a stiff headwind.

In this issue of the Quarterly, we'll share the data that indicates mule deer population trends in Region 2.

It's easier to divine which way mule deer populations are trending than to explain why they trend that way.

We might share some theories.





Montana has a long history of mule deer research and management.



Mule deer along the Helmville-Drummond Road, July 4, 2021.

Mackie, R.J., D.F. Pac, K.L. Hamlin, and G.L. Dusek. 1998. *Ecology and Management of Mule Deer and White-tailed Deer in Montana*. Montana Fish, Wildlife & Parks, Wildlife Division, Helena, MT.



GOAL:

Manage for the long-term welfare of Montana's mule deer resource and provide recreational opportunities that reflect the dynamic nature of deer populations.





To “*manage for the long-term welfare of Montana’s mule deer resource . . .*” speaks to the critical importance of habitat, habitat protection and habitat management.



“ . . . And provide recreational opportunities that reflect the dynamic nature of deer populations” speaks to harvest levels that moderate the natural lows and highs in mule deer populations.

In Region 2, FWP offers the mule deer hunting opportunity that the habitat supplies. Generally speaking, we're not harvesting with an intent to drive deer populations up or down (Figures 1-3).



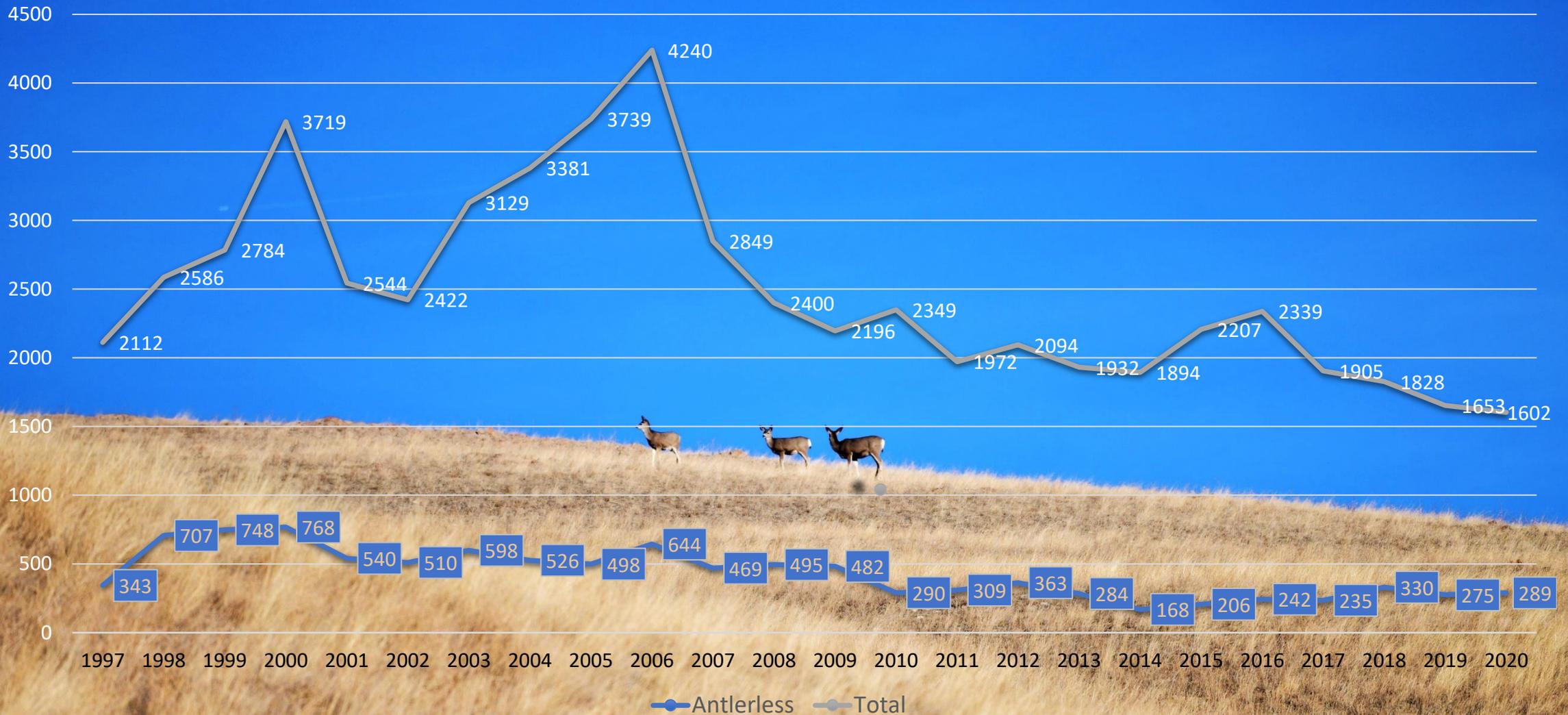
Mule deer along Bean Lake Road, in Region 4, March 13, 2021.

FIGURE 1. REGION 2 MULE DEER HARVEST



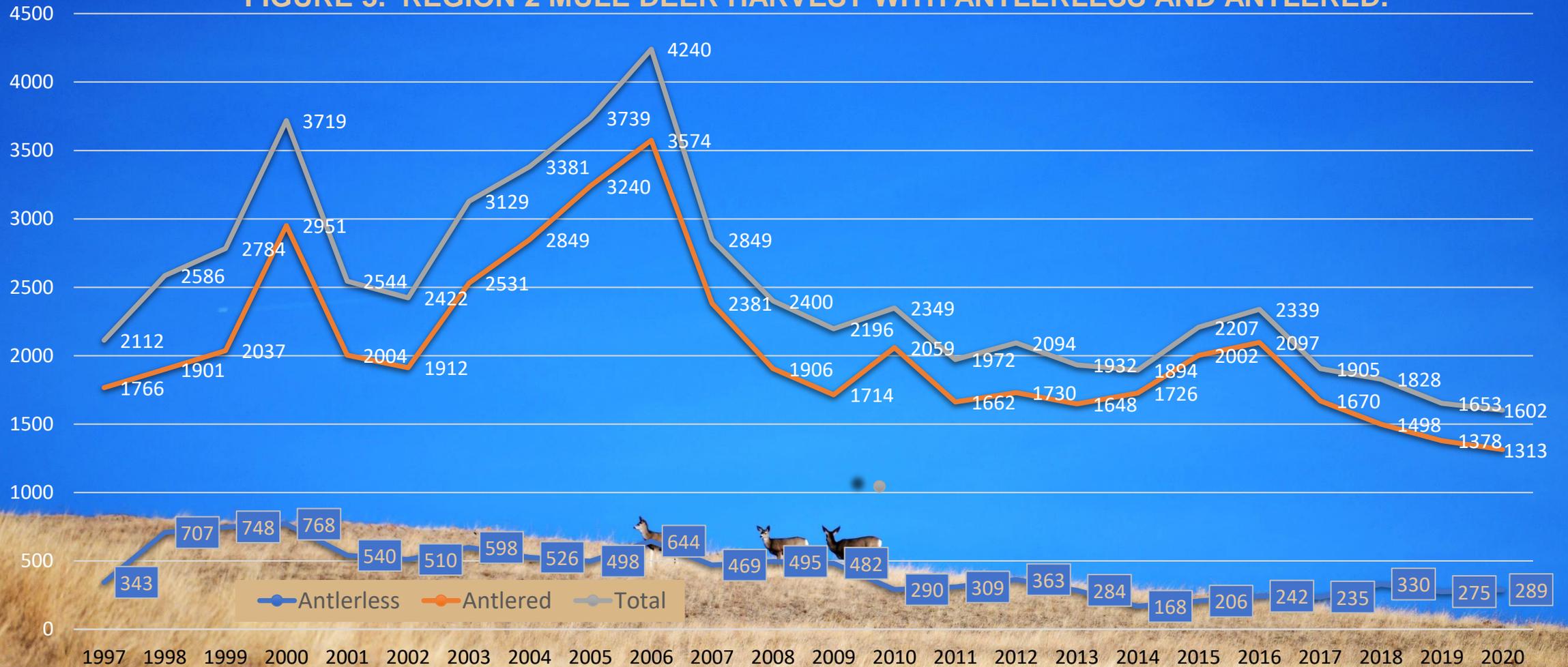
Regional mule deer harvest has been low and trending downward since 2007.

FIGURE 2. REGION 2 MULE DEER HARVEST WITH ANTLERLESS



Antlerless harvest (blue line) has been low and the trend relatively flat in Region 2, especially since 2010. This reflects low and steady numbers of antlerless B-Licenses offered.

FIGURE 3. REGION 2 MULE DEER HARVEST WITH ANTLERLESS AND ANTLERED.



The variation we see in total mule deer harvest reflects swings in the harvest of antlered bucks (orange line). Buck harvest regulations were in flux in 1997-2001, which likely accounts for the corresponding peak and valleys in antlered harvest. During those years, FWP was implementing its new adaptive harvest management plan in response to the deer decline of the mid-1990s, which was felt across much of the Western U.S.

However, the rise to a peak from 2002 to 2006 corresponds with aerial survey data for mule deer populations in several hunting districts during that same time period, which suggests that the antlered buck harvest trend is related to the population trend. Hunting regulations were held relatively constant during that period and have remained so to the present time. We assume that the steep harvest decline in 2007-2009, and the stable-to-declining trend since then is also a reflection of the population trajectory. Our most recent aerial surveys, while few and opportunistically performed, indeed produced lower counts than we saw in the mid-2000s.

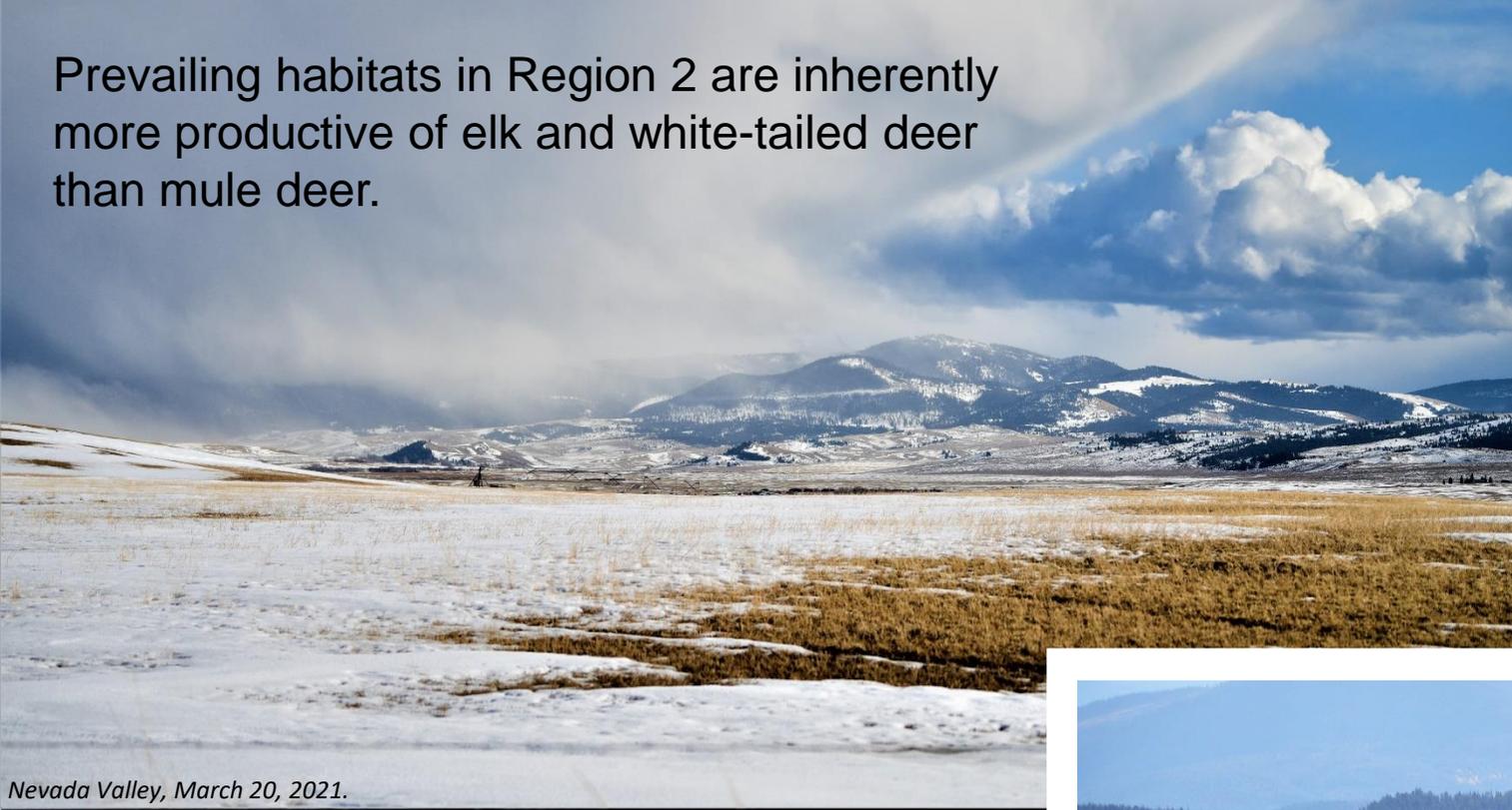
In 2020, Region 2
accounted for only
3% of Montana's
mule deer harvest.



A topographic map of Montana, divided into seven numbered regions. The map uses color gradients to represent elevation, with greens and blues for lower elevations and yellows and browns for higher elevations. The regions are outlined in black. Region 1 is in the northwest, Region 2 is in the west-central part, Region 3 is in the south-central part, Region 4 is in the north-central part, Region 5 is in the east-central part, Region 6 is in the northeast, and Region 7 is in the southeast. The text is overlaid on the map, centered over Region 2.

Region 2 covers 7% of Montana, so why doesn't it contribute more than 3% to the state's mule deer harvest?

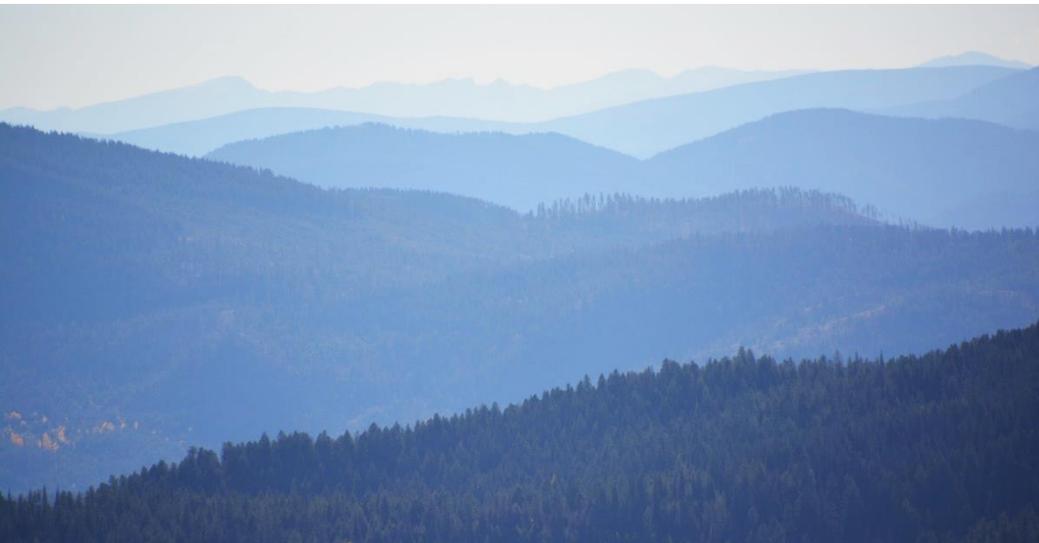
Prevailing habitats in Region 2 are inherently more productive of elk and white-tailed deer than mule deer.



Nevada Valley, March 20, 2021.



Warm Springs Wildlife Management Area, July 12, 2021.



View from Elevation Mountain, October 11, 2015.



View from Elevation Mountain, October 11, 2015.

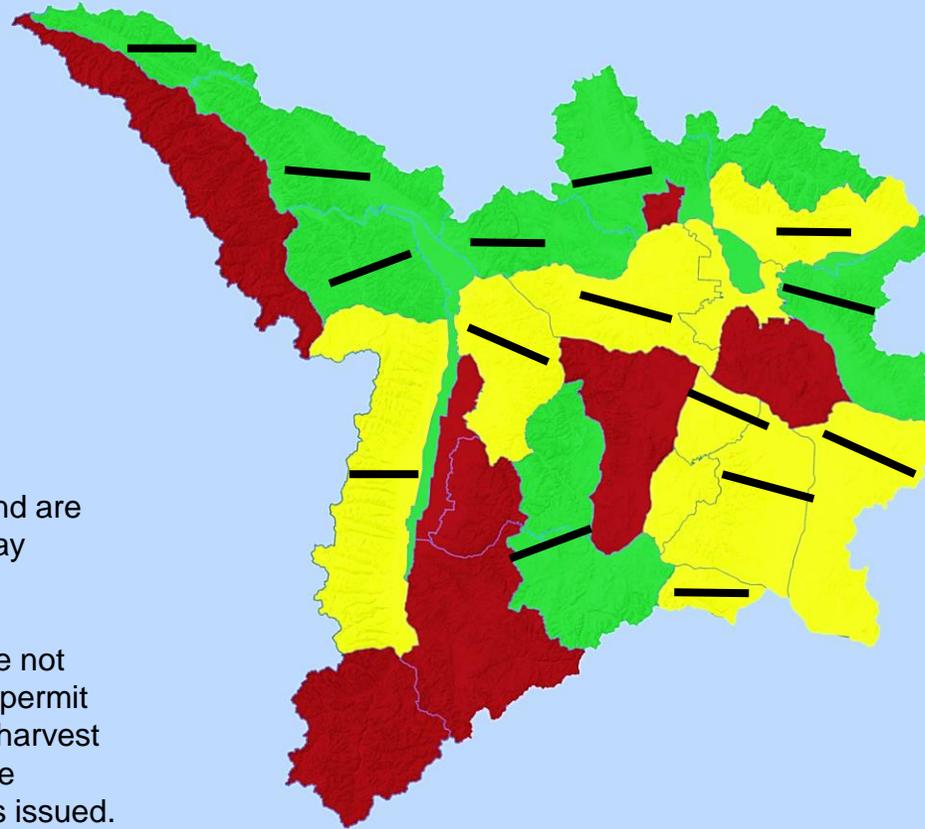
A photograph of a mule deer with large, dark antlers standing on a rocky, snow-dusted hillside. The deer is facing the camera, and its body is partially obscured by the rocks. The background consists of a steep, rocky slope covered in patches of snow and dry, brown grass. The overall scene is a natural, outdoor setting in a mountainous region.

Classic,
productive mule
deer habitat in
Region 2 is
comparatively
limited and
scattered in
distribution.

-  Increasing trend
-  Stable trend
-  Declining trend

Trend lines are approximations and are intended for display purposes only.

Harvest trends are not shown for limited-permit districts because harvest is controlled by the number of permits issued.



Mule Deer LPTs: General license, unlimited permits or limited permits

-  General
-  Limited
-  Unlimited

Figure 4. Geography of Recent Trends in Mule Deer Buck Harvest in Region 2.

Map Produced by: Region 2 Wildlife
9/10/2021



0 10 20
Miles

Can you find the
mule deer here?





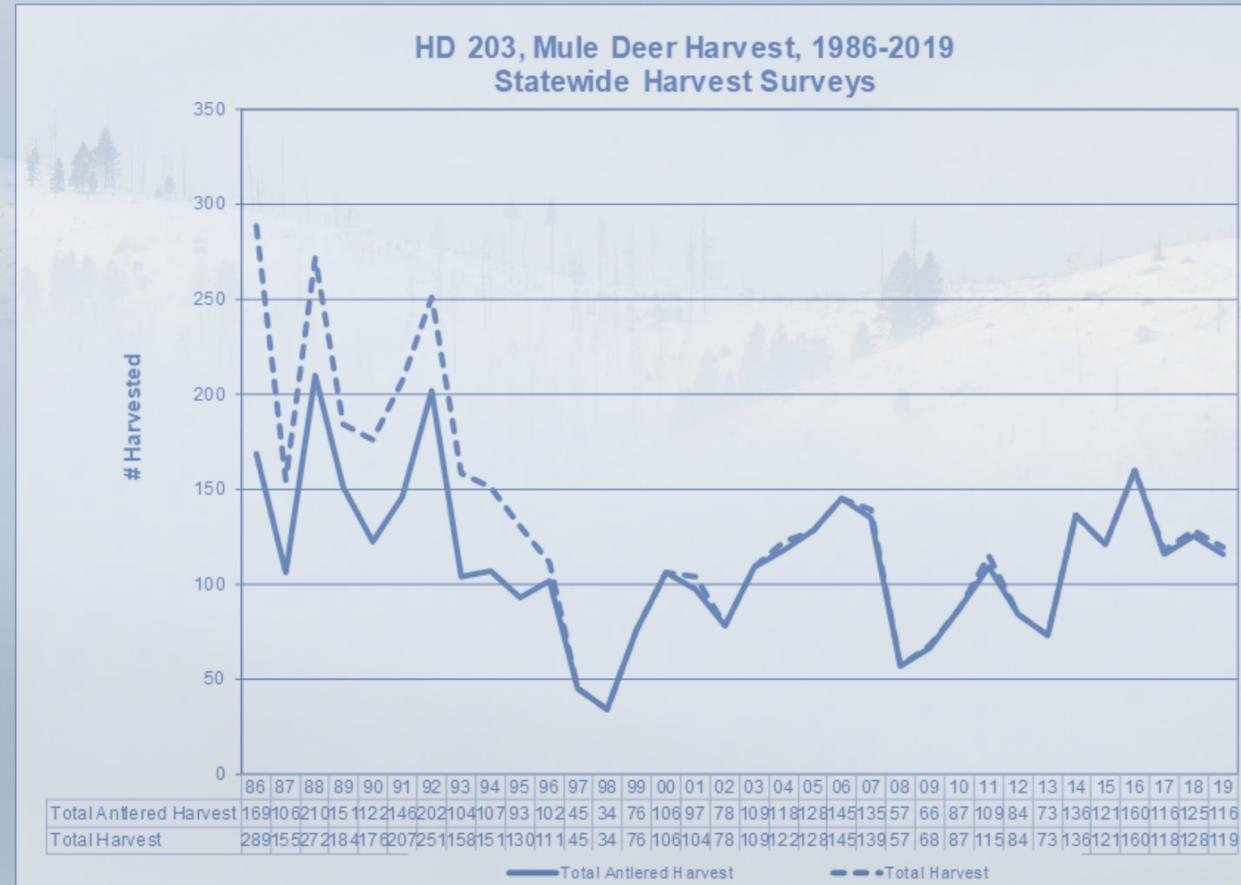
GENERAL LICENSE

- If you answered “no,” then you’ve identified the perfect kind of place to allow hunting for mule deer bucks on the general deer license.
- In Region 2, we allow bucks to be hunted on the general license in places where the harvest of antlered bucks is above or within 25% of the long-term average buck harvest for that hunting district.
- Such places tend to be where mule deer bucks find security from hunting pressure in difficult terrain or extensive forest cover with limited open roads. Which doesn’t necessarily mean that little harvest is realized.
- Hunting Districts where FWP offers a general license opportunity for mule deer bucks in Region 2 include 200, 201, 203, 211, 216, 280, 283, 285, and 293 (green areas in Figure 4).

Hunting District 203, the Grave Creek Range, supplied 9.6% of the antlered buck harvest in 2020 in Region 2, and is an example of a hunting district open to the hunting of mule deer bucks on the general license.

The trend in antlered buck harvest in HD 203 loosely follows the trend for Region 2 in the late 1990s to 2008 (Figure 3). But that's where the similarities end.

Since 2008, antlered buck harvest in HD 203 has trended upward while the regional trend has been down. Harvest data continue to support a 5-week season on the general license.



Black Mountain, February 16, 2020.

UNLIMITED PERMITS

- In a place like HD 292 (pictured at right), where a photographer can drive right up on mule deer and take their pictures out the window, you'll often find that hunters are required to apply for a permit to hunt antlered mule deer. Unlike the hunting districts where we allow mule deer buck hunting on the general deer license, places such as HD 292 offer excellent habitat where mule deer are highly vulnerable to harvest.
- From 1982-1998, when the general deer license was still valid for mule deer bucks in HD 292, only 2-9 bucks per 100 does survived the hunting season in any given year. This meant that much of the breeding was done by yearling bucks in their first year of sexual maturity. Fawn production and overwinter survival was surprisingly good. However, if a fawn crop was lost to a severe winter, there wouldn't be bucks to breed the does in the following year and a population crash could be expected. (Fortunately, we never witnessed that.)
- Unlimited buck permits were prescribed for HD 292 in 2000 to reduce buck harvest and increase buck survival for breeding. We set a low bar of at least 10 bucks per 100 does as the goal of this regulation for biological purposes. So, we attempted to continue allowing generous hunting opportunity while putting into place certain consequences for accepting a permit to hunt mule deer bucks in a place like HD 292.
- A holder of a permit to hunt mule deer bucks in HD 292, for example, must hunt mule deer bucks only in the HD for which the permit is valid. The holder forfeits the opportunity to hunt mule deer bucks anywhere else. With low numbers of bucks and with mostly small bucks in populations with unlimited permits, FWP predicted that hunter numbers in HD 292 would lessen, and that buck harvest would fall enough to reach a survival rate of at least 10 bucks per 100 does.
- Early-winter buck:doe ratios met or exceeded the goal of 10 bucks per hundred does in almost every aerial survey in 2001-2006, often landing at or near 15 bucks per 100 does. Recent aerial surveys have resulted in fewer than 10 bucks per 100 does when useful survey data was available. More often, too few mule deer were observable on the survey area for calculating a valid buck:doe ratio in recent years.
- Roughly 1/3 of Region 2 is subject to the unlimited permit regulation governing the harvest of mule deer bucks (yellow area in Figure 4). Hunting districts with this regulation include 204, 212, 213, 215, 240, 281, 292 and 298. In the long view, the regulation has not achieved its modest goal, while contributing to the complexity of regulations that we use to manage deer in Region 2. Over the past 40 years we have monitored results of a general 5-week season for antlered mule deer and results of a 5-week season with unlimited buck permits, and neither has achieved the long-term biological goal in hunting districts such as 292.



Hunting District 292, in the Garnet Mountains, made up 9.3% of the antlered buck harvest in Region 2 in 2020.

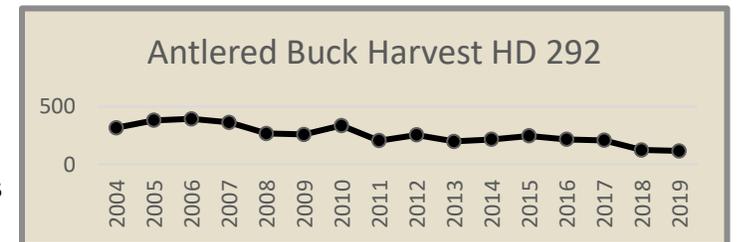


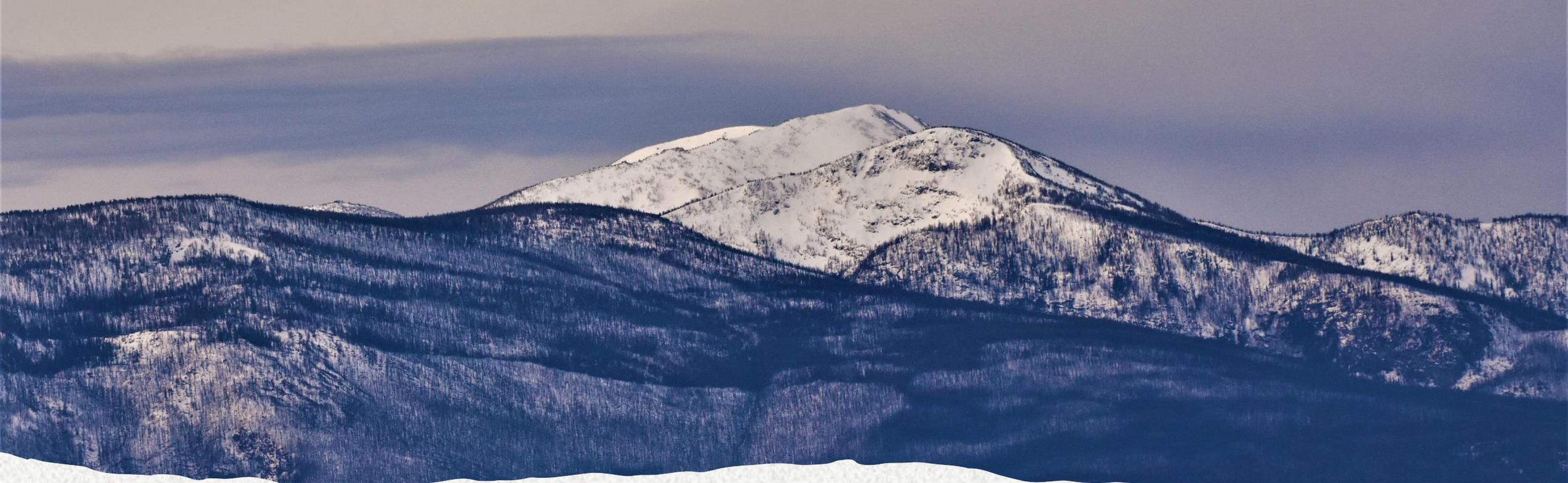
This page: Mule deer in various locations in HD 292.





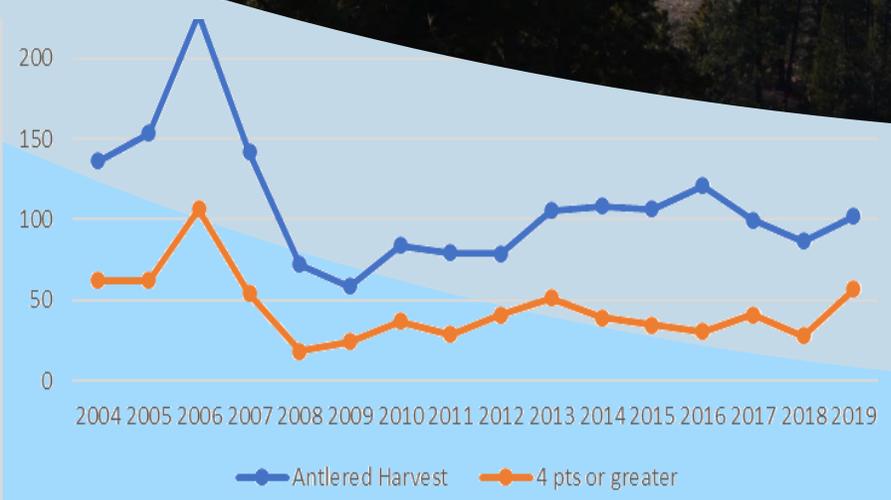
The harvest trend in HD 292 since 2004 follows that of Region 2 (Figure 3), with the exception that the regional peak in 2006 is not reflected in HD 292. That might be because antlered buck hunting in HD 292 is by permit, though the permits are unlimited.





Lolo Peak after the 2017 wildfire, November 26, 2017.

- **UNLIMITED PERMITS + 3-WEEK SEASON**
 - In Hunting Districts 204 and 240, in the northern Bitterroot Valley, unlimited permits are layered upon a shortened hunting season for mule deer bucks. The idea of the 3-week season is to avoid hunting bucks during the peak of the mule deer rut, when bucks are especially vulnerable to harvest. Layered with unlimited permits, this is intended to enhance the effectiveness of unlimited permits alone, while still allowing more hunting opportunity than limited permits for bucks.
 - Aerial survey data for evaluating the effectiveness of this season-type is lacking. However, the trend in antlered buck harvest gives a clue.



Hunting District 240, in the Bitterroot Mountains, made up 8.6% of the antlered buck harvest (blue line on graph) in Region 2 in 2020. Its trend in antlered buck harvest resembles the Region 2 trend, including the peak in 2006, which did not appear in the data for HD 292. Hunting for mule deer bucks in HD 240 has been by unlimited permits throughout the period depicted on the graph and has also run for only 3 weeks during the general season. The antlered harvest in HD 240 since 2008 differs from that of HD 292 and Region 2 by its slightly upward trend, as we also see in HD 203.



Mule Deer Special Management Units



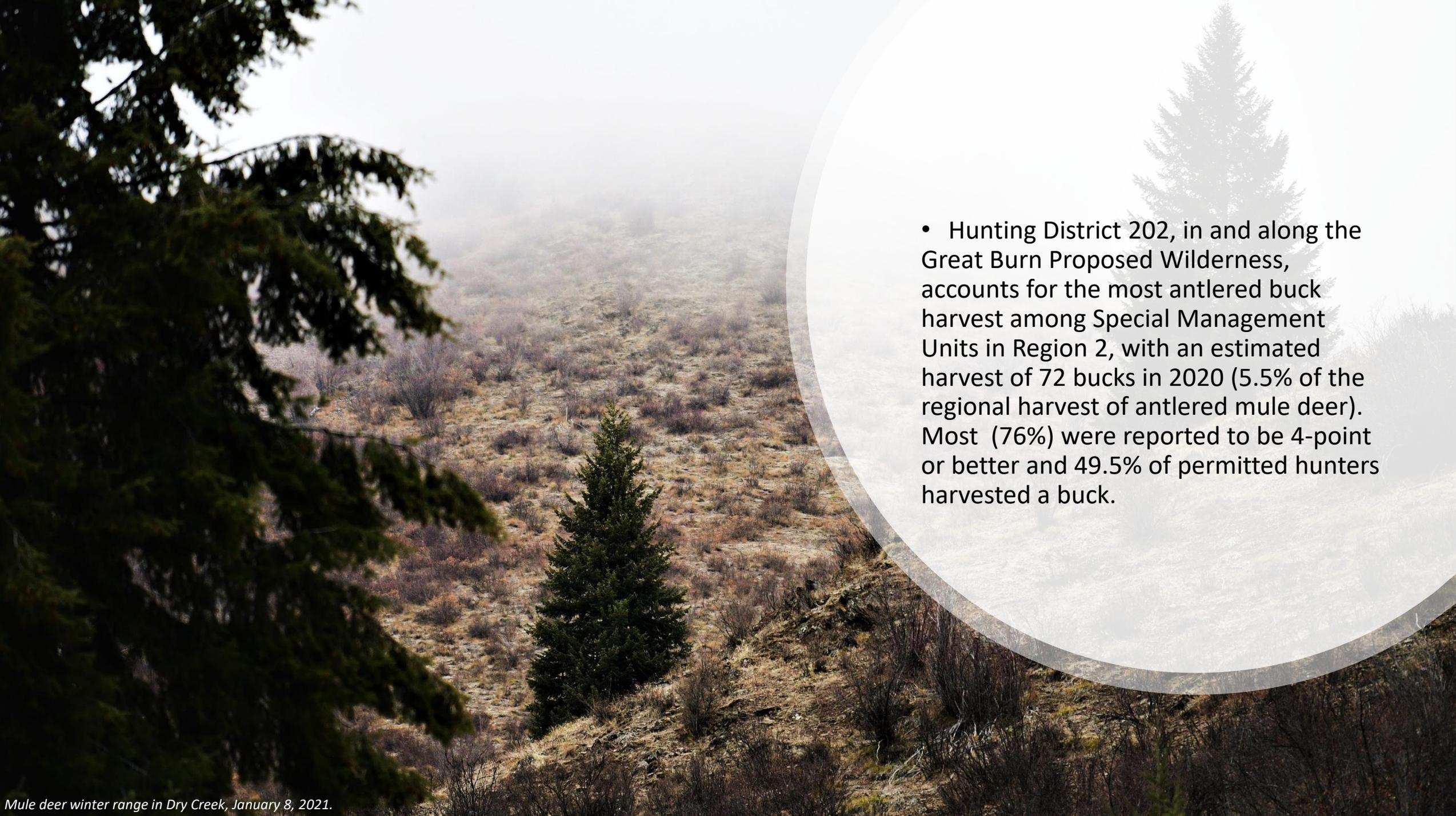
FWP wildlife biologists Liz Bradley and Rebecca Mowry radio-collaring a mule deer in Rye Creek on February 4, 2016. Photo courtesy of Liz Bradley.



Mule deer with one shed antler in the East Fork Bitterroot, February 22, 2020.

LIMITED PERMITS

Mule deer Special Management Units (SMU) were established around Montana in 1998 to provide the opportunity for hunters to harvest older aged bucks in areas with good access. Limited numbers of permits are offered in each SMU to improve buck survival. In Region 2, SMUs include HDs 202, 210, 261, 270 and 291. Limited permits are also offered in HDs 250 and 282.

- 
- Hunting District 202, in and along the Great Burn Proposed Wilderness, accounts for the most antlered buck harvest among Special Management Units in Region 2, with an estimated harvest of 72 bucks in 2020 (5.5% of the regional harvest of antlered mule deer). Most (76%) were reported to be 4-point or better and 49.5% of permitted hunters harvested a buck.



This page: Mule deer in various locations in HD 270.

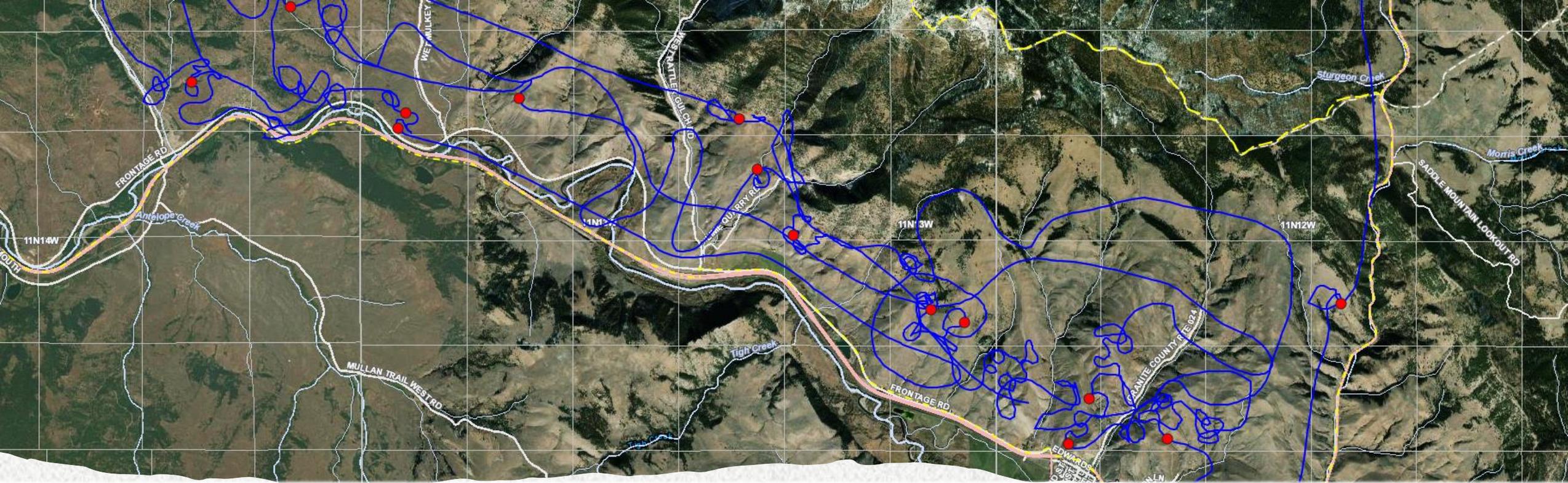


Hunting District 270, the East Fork of the Bitterroot, may be the most famous Special Management Unit in Region 2.



Mule deer on mountain mahogany on Old Darby Road, March 16, 2019.

- In 2020, 82.7% of the permitted hunters harvested a combined 37 antlered bucks in HD 270, all of which were reported to be 4-point or better.



Above: Biologist Scott Eggeman's GPS track log and waypoints for 773 mule deer counted in January 2021 on the Clark Fork Face in HD 292. This count exceeds the highest of 3 counts by Thompson in 2004, but falls below the high of 1,124 in 2001. See table on next page. (Divide Thompson's counts in that table by 3 to make them comparable to subsequent surveys.)

Aerial Surveys of Mule Deer Populations

- In Region 2, mule deer winter habitats are suitable for effective aerial surveys in only a few locations. Biologists developed a library of baseline information in these areas in the 1980s, 1990s and early 2000s. Since then, our aerial surveys generally have served as periodic checks on mule deer in relation to baseline conditions and to current harvest data.
- From 1998-2005, we tested the repeatability of mule deer counts in prime winter habitat by conducting “census surveys” in spring. Both census areas were in Hunting District 292—one called Murray-Douglas and the other called Clark Fork Face. During those years, we flew on consecutive days, or every other day, for 3 replicated surveys in the same survey unit. While the Murray-Douglas area held fewer deer, it yielded more consistent results than the Clark Fork Face. The fact that the results of mule deer surveys can vary substantially from one day to the next, even in some of our most productive mule deer winter ranges in Region 2, causes us to interpret and apply our results cautiously to realize their best utility.
- In Table 1 (on the following page), the spring surveys attributed to Michael Thompson represent the sums of 3 surveys of deer in the same area. Divide his totals by 3 to compare with future counts in the same area.
- Early-winter surveys (Table 2) are used for obtaining buck:doe ratios before antlers drop. The standard for a valid buck:doe ratio is to count at least 100 does, which is often not possible in early winter.

Table 1. Spring aerial surveys of mule deer in Region 2. The survey area (3rd column) is denoted by hunting district. Surveys cover a small sample of deer habitat across Region 2.

Surveys									
Year	Survey Date	Area	Biologist	Fawn	Doe	Unc_All	Unc_Ad	Unc_Ant-	Total
2020-2021	03/28/2021	HD 201	Bradley, Liz	40	0	0	141	0	181
2020-2021	03/24/2021	Clark Fork Face 292_298	Eggeman, Scott	218	0	0	555	0	773
2020-2021	03/24/2021	Murray-Douglas 298	Eggeman, Scott	42	0	0	131	0	173
2020-2021	03/23/2021	Sula/Skalkaho 270	Mowry, Rebecca	244	0	30	662	0	936
2019-2020	04/11/2020	Clark Fork Face 292_298	Eggeman, Scott	116	0	0	170	170	456
2018-2019	04/19/2019	Sula/Skalkaho 270	Mowry, Rebecca	151	0	8	667	0	826
2018-2019	04/18/2019	Dry Creek 202	Bradley, Liz	41	0	7	188	0	236
2018-2019	04/12/2019	Garnett 291	Eggeman, Scott	107	0	0	0	449	556
2017-2018	05/09/2018	217	Golla, Julie	17	99	0	0	0	116
2017-2018	04/19/2018	Dry Creek 202	Bradley, Liz	69	0	0	226	0	295
2017-2018	03/29/2018	Sula/Skalkaho 270	Mowry, Rebecca	393	0	39	1,148	0	1,580
2016-2017	04/10/2017	Dry Creek 202	Bradley, Liz	33	0	19	197	0	249
2016-2017	03/31/2017	Sula/Skalkaho 270	Mowry, Rebecca	343	0	107	1,330	0	1,780
2015-2016	04/22/2016	Dry Creek 202	Bradley, Liz	21	0	6	113	0	140
2015-2016	03/19/2016	Sula/Skalkaho 270	Mowry, Rebecca	357	0	5	1,073	0	1,435
2014-2015	04/13/2015	Dry Creek 202	Bradley, Liz	39	0	117	122	0	278
2014-2015	03/22/2015	Sula/Skalkaho 270	Mowry, Rebecca	272	0	90	679	0	1,041
2013-2014	04/28/2014	Dry Creek 202	Edwards, Victoria	71	0	12	206	0	289
2012-2013	04/01/2013	HD 250	Kolbe, Jay	24	0	0	59	0	83
2012-2013	04/01/2013	Sula/Skalkaho 270	Kolbe, Jay	232	0	0	830	0	1,062
2011-2012	04/09/2012	Dry Creek 202	Edwards, Victoria	86	0	0	196	0	282
2010-2011	04/20/2011	Dry Creek 202	Edwards, Victoria	123	0	3	234	0	360
2004-2005	03/16/2005	Clark Fork Face 292_298	Thompson, Michael	312	0	2,044	503	0	2,859
2004-2005	03/16/2005	Murray-Douglas 298	Kolbe, Jay	121	0	710	242	0	1,073
2003-2004	04/12/2004	Clark Fork Face 292_298	Thompson, Michael	281	0	962	440	0	1,683
2003-2004	04/12/2004	Murray-Douglas 298	Kolbe, Jay	80	0	489	118	0	687
2002-2003	04/09/2003	Clark Fork Face 292_298	Thompson, Michael	267	0	1,615	346	0	2,228
2002-2003	04/09/2003	Murray-Douglas 298	Kolbe, Jay	159	0	765	260	0	1,184
2001-2002	04/11/2002	Clark Fork Face 292_298	Thompson, Michael	372	0	0	2,422	0	2,794
2001-2002	04/11/2002	Murray-Douglas 298	Kolbe, Jay	154	0	0	1,011	0	1,165
2000-2001	04/02/2001	Clark Fork Face 292_298	Thompson, Michael	322	0	0	2,617	0	2,939
2000-2001	04/02/2001	Murray-Douglas 298	Kolbe, Jay	173	0	0	1,099	0	1,272
1999-2000	03/26/2000	Clark Fork Face 292_298	Thompson, Michael	706	0	0	2,019	0	2,725
1999-2000	03/26/2000	Murray-Douglas 298	Kolbe, Jay	227	0	0	550	0	777
1998-1999	03/28/1999	Clark Fork Face 292_298	Thompson, Michael	471	0	0	2,462	0	2,933
1998-1999	03/28/1999	Murray-Douglas 298	Kolbe, Jay	143	0	39	1,065	0	1,247

Table 2. Early-winter aerial surveys of mule deer in Region 2. Early winter surveys are less reliable indicators of population trend but are needed for buck:doe ratios before antlers drop.

Surveys								
Year	Survey Date	Area	Biologist	Sum_Ad Buck(Sum)	Doe	Sum_Yrl_Bucks(Sum)	Fawn	Total
2019-2020	12/04/2019	Sula/Skalkaho 270	Mowry, Rebecca	136	330	5	122	593
2019-2020	01/19/2020	Dry Creek 202	Bradley, Liz	9	55	3	25	93
2019-2020	01/16/2020	Clark Fork Face 292_298	Eggeman, Scott	9	98	5	55	167
2019-2020	01/16/2020	Murray-Douglas 298	Eggeman, Scott	1	18	2	10	31
2018-2019	12/04/2018	Sula/Skalkaho 270	Mowry, Rebecca	155	425	25	154	767
2016-2017	12/23/2016	HD 282	Eggeman, Scott	25	71	12	22	130
2016-2017	12/23/2016	Murray-Douglas 298	Eggeman, Scott	3	48	0	17	68
2016-2017	12/08/2016	Sula/Skalkaho 270	Mowry, Rebecca	0	202	0	122	410
2016-2017	01/07/2017	Sula/Skalkaho 270	Mowry, Rebecca	66	389	16	216	721
2015-2016	01/06/2016	Dry Creek 202	Bradley, Liz	16	32	7	11	67
2015-2016	01/06/2016	Fish Creek 202	Bradley, Liz	5	9	1	5	20
2014-2015	12/09/2014	HD 282	Eggeman, Scott	13	52	2	24	91
2014-2015	12/09/2014	Murray-Douglas 298	Eggeman, Scott	0	22	3	16	42
2014-2015	01/09/2015	Dry Creek 202	Bradley, Liz	4	6	2	3	15
2014-2015	01/06/2015	Sula/Skalkaho 270	Mowry, Rebecca	115	449	67	253	886
2013-2014	01/06/2014	Dry Creek 202	Edwards, Victoria	27	84	17	46	175
2013-2014	01/06/2014	Sula/Skalkaho 270	Borg, Nathan	63	490	25	291	938
2012-2013	12/29/2012	Dry Creek 202	Edwards, Victoria	69	169	29	75	343
2012-2013	01/12/2013	HD 282	Kolbe, Jay	30	125	12	61	228
2012-2013	01/12/2013	Murray-Douglas 298	Kolbe, Jay	3	113	10	53	179
2012-2013	01/05/2013	Sula/Skalkaho 270	Kolbe, Jay	82	424	47	192	745
2011-2012	12/19/2011	Dry Creek 202	Edwards, Victoria	22	73	17	33	145
2011-2012	12/06/2011	HD 250	Jourdonnais, Craig	0	0	0	0	0
2010-2011	12/07/2011	Sula/Skalkaho 270	Jourdonnais, Craig	1	7	0	5	13
2005-2006	01/07/2006	Clark Fork Face 292_298	Thompson, Michael	20	502	40	344	906
2005-2006	01/07/2006	Murray-Douglas 298	Kolbe, Jay	16	237	32	177	462
2004-2005	01/10/2005	Clark Fork Face 292_298	Thompson, Michael	6	192	25	85	311
2004-2005	01/10/2005	Murray-Douglas 298	Kolbe, Jay	5	103	5	33	147
2003-2004	01/09/2004	Clark Fork Face 292_298	Thompson, Michael	13	277	35	213	538
2003-2004	01/09/2004	Murray-Douglas 298	Kolbe, Jay	11	122	12	86	231
2002-2003	01/05/2003	Clark Fork Face 292_298	Thompson, Michael	2	102	4	62	170
2002-2003	01/05/2003	Murray-Douglas 298	Kolbe, Jay	3	54	4	33	94
2001-2002	01/03/2002	Clark Fork Face 292_298	Thompson, Michael	23	326	19	213	581
2001-2002	01/03/2002	Murray-Douglas 298	Kolbe, Jay	9	108	20	79	217
2000-2001	01/04/2001	Clark Fork Face 292_298	Thompson, Michael	9	176	16	115	316
2000-2001	01/04/2001	Murray-Douglas 298	Kolbe, Jay	2	83	3	57	175
1999-2000	01/05/2000	Clark Fork Face 292_298	Thompson, Michael	5	75	1	36	117
1999-2000	01/05/2000	Murray-Douglas 298	Kolbe, Jay	4	93	2	41	140
1998-1999	01/06/1999	Clark Fork Face 292_298	Thompson, Michael	3	330	11	252	596



- Our Operational Assumptions—A Work in Progress:
 - Mule deer in Region 2 generally occur at lower than historical densities.
 - Across the northern tier of Region 2, from Idaho to the Continental Divide, mule deer densities generally are stable or trending upward in recent years, though still lower than historical levels.
 - In the Bitterroot, mule deer occur across a variety of habitats and social circumstances that resist generalizing.

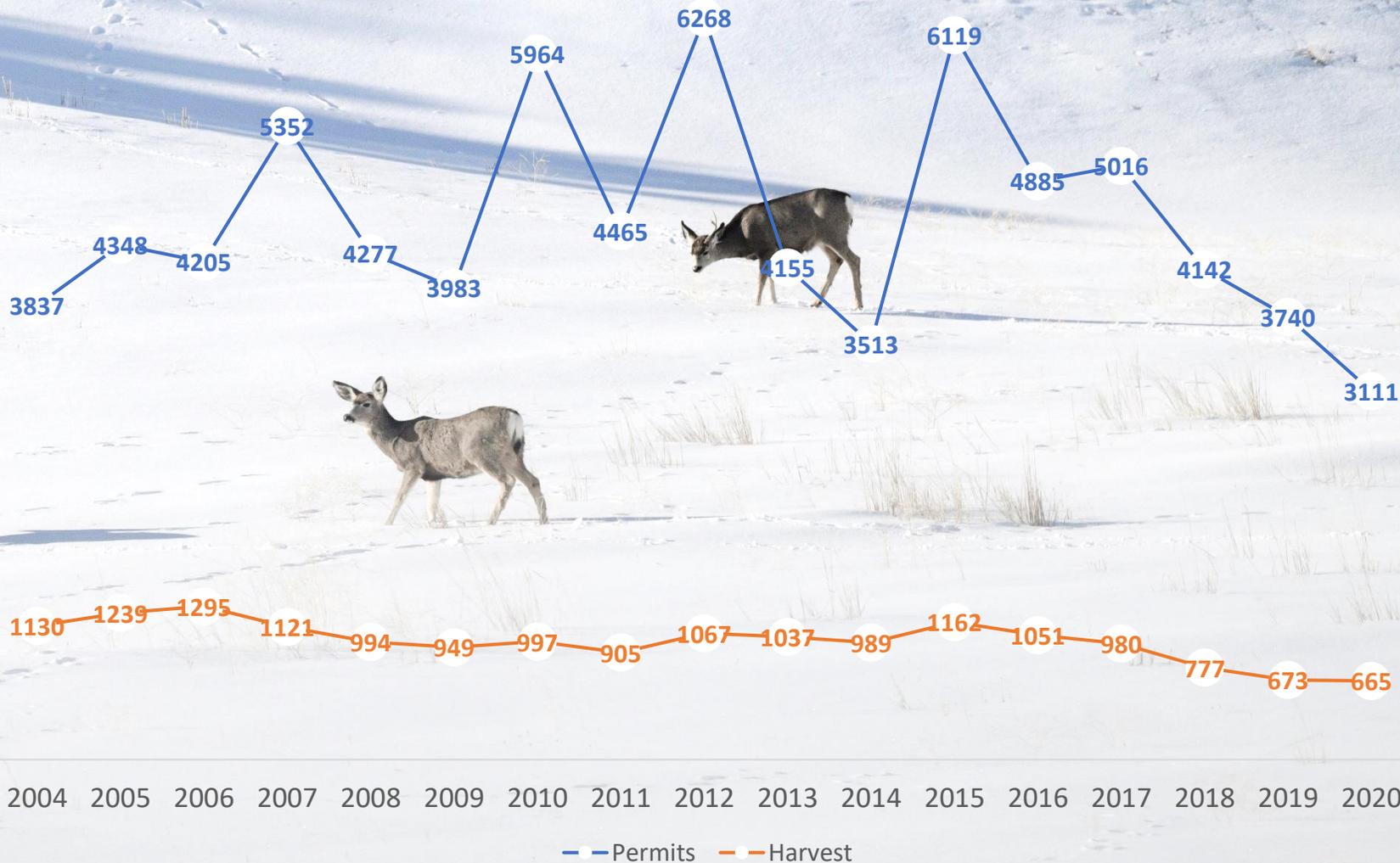
- Our Operational Assumptions—A Work in Progress: continued:

- In the Rock Creek watershed, mule deer densities are trending upward.
- In the Upper Clark Fork, mule deer densities, as reflected by antlered harvest, are declining across a broad landscape.



Mule deer west of Philipsburg, July 3, 2021.

REGION 2 MULE DEER BUCK PERMITS AND HARVEST



Generally, with some variation, we see antlered buck harvest remaining stable or increasing in hunting districts where buck hunting is allowed on the general license. We allow mule deer hunting on the general license in places where deer have effective escape terrain and cover.

Generally, with some variation, we see antlered buck harvest remaining stable or declining in hunting districts where buck hunting is regulated by unlimited permits. We use unlimited permits to temper buck harvest in places where mule deer bucks are easier to hunt and harvest.

On the surface it appears that antlerless permits diminish antlered buck harvest, which is their purpose.

However, when we test for this relationship, we find that antlered buck permits explain less than 20% of the variation in buck harvest.

This suggests that declining buck harvest in permit areas may partially reflect the trend in the deer population. It may also reflect changes in access to hunt bucks on private property or on public forest roads.

It's interesting to see how widely hunting pressure can vary from year to year, driven by varying numbers of hunters who apply for unlimited permits, especially from 2009 to 2016..

Since 2016, numbers of hunters with unlimited permits have declined steadily, raising questions about whether the most recent hunter decline is driving the harvest decline, or vice versa.

Limited and unlimited permits for antlered mule deer, and harvests on those permits, in Region 2, Montana Fish, Wildlife & Parks, from the statewide harvest survey.



What does the future hold
for mule deer in Region 2?



What does the future hold?

- It might be, and probably will be, a different future in Region 2 than in mule deer habitats located east of the Continental Divide.
- Region 2 is subject to increasing habitat loss and fragmentation.
- Climate will play a pivotal role.
- Elk numbers are at or near modern-day highs in Region 2, which is suspected, not yet proven, to suppress mule deer.
- Also, mule deer share native habitats with resilient white-tailed deer populations.
- Predation is a factor, especially in combination with weather and habitat loss.
- Despite challenges and concerns, recent survey results generally fall in line with baseline data from the 1990s-early 2000s.

Bottom line:

- We intend to continue managing mule deer harvest conservatively in Region 2.
- We will continue focusing habitat protection efforts on critical mule deer habitats.
- We intend to increase our emphasis on influencing the management of forests and shrub habitats to enhance mule deer production.
- We plan to continue managing large carnivore populations in balance with mule deer and other prey.
- We intend to recommit to routine aerial surveys for mule deer, following FWP Adaptive Harvest Management guidance.
- We will do our part in Montana's efforts to prevent and minimize CWD presence in mule deer.

Mule Deer “of the Season,” Fresh from the Camera

